

Abstract of the Disclosure

A system utilizing a digital computer for acquiring, storing and evaluating crystal images. The system includes a video camera (12) which produces a digital output signal representative of a crystal specimen positioned within its focal window (16). The digitized output from the camera (12) is then stored on data storage media (32) together with other parameters inputted by a technician and relevant to the crystal specimen. Preferably, the digitized images are stored on removable media (32) while the parameters for different crystal specimens are maintained in a database (40) with indices to the digitized optical images on the other data storage media (32). Computer software is then utilized to identify not only the presence and number of crystals and the edges of the crystal specimens from the optical image, but to also rate the crystal specimens by various parameters, such as edge straightness, polygon formation, aspect ratio, surface clarity, crystal cracks and other defects or lack thereof, and other parameters relevant to the quality of the crystals.